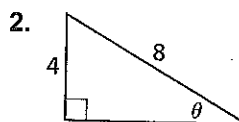
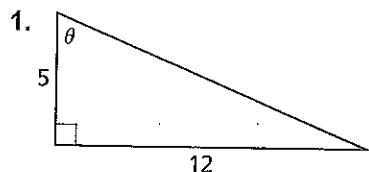


# 9.1 Practice A

In Exercises 1 and 2, evaluate the six trigonometric functions of the angle  $\theta$ .



3. Let  $\theta$  be an acute angle of a right triangle. Use the two trigonometric functions  $\sin \theta = \frac{3}{7}$  and  $\cot \theta = \frac{2\sqrt{10}}{3}$  to sketch and label the triangle. Then evaluate the other four trigonometric functions of  $\theta$ .

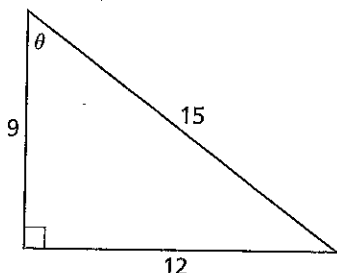
In Exercises 4–6, let  $\theta$  be an acute angle of a right triangle. Evaluate the other five trigonometric functions of  $\theta$ .

4.  $\sin \theta = \frac{4}{11}$

5.  $\cos \theta = \frac{5}{6}$

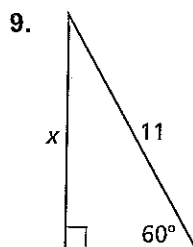
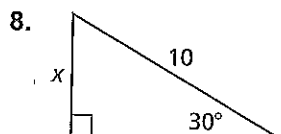
6.  $\tan \theta = \frac{3}{4}$

7. Describe and correct the error in finding  $\tan \theta$  of the triangle below.



$\times \tan \theta = \frac{\text{adj.}}{\text{opp.}} = \frac{9}{12} = \frac{3}{4}$

In Exercises 8 and 9, find the value of  $x$  for the right triangle.



10. A parasailor is attached to a boat with a rope 80 feet long. The angle of elevation from the boat to the parasailor is  $36^\circ$ . Estimate the parasailor's height above the boat. Round your answer to the nearest tenth.

**9.2 Practice A**

In Exercises 1–6, draw an angle with the given measure in standard position.

1.  $170^\circ$

2.  $540^\circ$

3.  $-80^\circ$

4.  $5\pi$

5.  $\frac{2\pi}{3}$

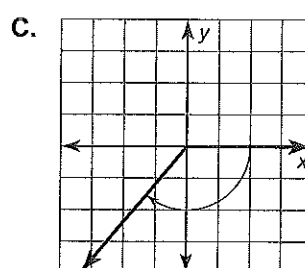
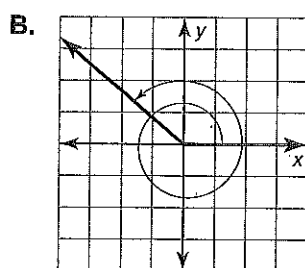
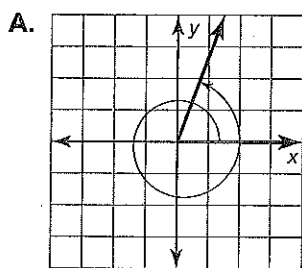
6.  $-\frac{3\pi}{4}$

In Exercises 7–9, match the angle measure with the angle.

7.  $500^\circ$

8.  $\frac{7\pi}{3}$

9.  $-130^\circ$



In Exercises 10–12, find one positive angle and one negative angle that are coterminal with the given angle.

10.  $75^\circ$

11.  $-40^\circ$

12.  $\frac{7\pi}{3}$

In Exercises 13–18, convert the degree measure to radians or the radian measure to degrees.

13.  $225^\circ$

14.  $50^\circ$

15.  $-160^\circ$

16.  $\frac{\pi}{12}$

17.  $\frac{5\pi}{9}$

18.  $-\frac{\pi}{8}$

19. You work every Saturday in the yard from 8:00 A.M. to 11:30 A.M. Draw a diagram that shows the rotation completed by the hour hand of a clock during this time. Find the measure of the angle generated by the hour hand in both degrees and radians. Compare this angle with the angle generated by the minute hand from 8:00 A.M. to 11:30 A.M.